

Claims

1. (Amended) A method for adjusting suction of a cutting machine when cutting is performed with the cutting machine in which a sheet material is sucked and held on a table and a cutting blade is moved with respect to the table based on preset data while a sheet material is sucked and held on the table, comprising:

while an already-cut portion is covered with a sealing sheet so as to prevent leakage from increasing,

as cutting progresses, confirming an extent of leakage from an already-cut portion, and adjusting a suction state so as to compensate for reduction, due to the leakage, in a holding force on the sheet material on the table, and in consideration of a covered state with the sealing sheet.

2. The method of claim 1, wherein the suction state is adjusted based on results of a cutting simulation.

3. The method of claim 1 or 2, wherein the suction state is adjusted based on a prediction accompanying the progress of cutting.

4. (Amended) The method of any one of claims 1 to 3, wherein in the cutting machine, an already cut portion is covered with a sealing sheet so as to prevent leakage from increasing, and

~~the suction state is adjusted in consideration of a covered state with the sealing sheet.~~

5.—The method of any one of claims 1 to 34, wherein the suction state is adjusted in stages as cutting progresses.

56. (Amended) The method of claim 45, wherein the suction state is adjusted in stages as cutting progresses, taking a part that is cut off a sheet material as a reference.

67. (Amended) A suction adjustment apparatus, of a cutting machine, for adjusting a suction state, when a sheet material is cut by moving a cutting blade based on preset data in the cutting machine in which a sheet material is sucked and held on a table, comprising:

mask covering means for covering an already-cut portion with a sealing sheet so as to prevent leakage from increasing;
suction amount adjustment means for confirming an extent of leakage from an already-cut portion, and adjusting a suction state so as to compensate for reduction, due to the leakage,
in a holding force on the sheet material on the table, and in consideration of a covered state with the sealing sheet.

7. (Amended) The suction adjustment apparatus of claim 6,
wherein the suction amount adjustment means comprises:

relation storing means for storing a relation obtained by associating in advance a cut distance of an already-cut portion and an adjustment amount of a suction state compensating for an extent of leakage from the already-cut portion;

data input means for inputting data for cutting a sheet material;

distance calculating means for calculating an amount of a cut distance increased as cutting progresses, based on data input by the data input means; and

adjustment amount calculating means for calculating an adjustment amount of a suction state, in accordance with an amount of a cut distance increased calculated by the distance calculating means, and based on a relation between the cut distance and the adjustment amount of the suction state, referring to the relation storing means.

8. (Amended) The suction adjustment apparatus of claim 7,
~~wherein the cutting machine comprises mask covering means for covering an already cut portion with a sealing sheet so as to prevent leakage from increasing, and~~
~~wherein the suction adjustment apparatus further comprising~~ mask calculating means for calculating a cut distance of a portion that is covered with the sealing sheet of the mask covering means, of the already-cut portion,
wherein the adjustment amount calculating means obtains

an amount of a cut distance increased for calculating an adjustment amount of the suction state, by correcting an amount of a cut distance increased calculated by the distance calculating means, with a cut distance of a portion that is covered with the sealing sheet calculated by the mask calculating means.

9. The suction adjustment apparatus of claim 7 or 8, further comprising:

adjustment amount display means for displaying an adjustment amount of a suction state calculated by the adjustment amount calculating means, in association with the progress of cutting of a sheet material;

modification input means for inputting a modification of an adjustment amount with respect to the adjustment amount displayed by the adjustment amount display means; and

adjustment amount modifying means for modifying an adjustment amount based on input of the modification input means.

10. (Amended) A program for letting a computer function as the suction adjustment apparatus of the cutting machine according to any one of claims 67 to 9.